

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL FOR MD 187 IN MONTGOMERY COUNTY.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 187 APPROACHES RUNNING CONCURRENTLY.

AN ALTERNATE PEDESTRAIN PHASE WILL BE PROVIDED ACROSS THE NORTH AND SOUTH LEG OF MD 187.

SPECIAL NOTES

1. DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. CONTACT MR. ROBERT GONZALES AT 301-217-2182 SEVENTY-TWO HOURS IN ADVANCE OF THE INTENDED WORK.
2. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SYNDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. ROBERT SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS
DISTRICT ENGINEER
PHONE: 301-513-7311

MR. AUGIE RUBISH
ASSISTANCE DISTRICT ENGINEER-UTILITY
PHONE: 301-513-7350

MR. MAJIB SHAKIB
ASSISTANCE DISTRICT ENGINEER-TRAFFIC
PHONE: 301-513-7358

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATION DIVISION
PHONE: 410-787-7630

MR. RANDY BROWN
ASSISTANCE DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-513-7304

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM	QUANTITY	DESCRIPTION
9000	2 EA	12 INCH 2 WAY 2 SECTION PEDESTAL MOUNT
9000	1 EA	12 INCH 1 WAY 2 SECTION PEDESTAL MOUNT
9002	1 EA	(CONT/CAB/ADD) DETECTOR AMPLIFIER 4-CH RACK MT
9003	1 EA	(CONT/CAB/ADD) DETECTOR PANEL
9004	1 EA	(CONT/CAB/ADD) DETECTOR RACK POWER SUPPLY
9014	6 EA	(MAST ARM MT) 12" 1-WAY, 3-SECTION SIGNAL (ALUMINUM)
9076	1 EA	CABINET "C" TYPE POLE MT
9087	1 EA	CONTROLLER ASC II W/ TELEMTRY
9096	4 EA	PUSHBUTTON AND SIGN (R10-4, PUSH BUTTON TO CROSS OLD GEORGETOWN RD)
9090	10.3 SF	D3-2 (AUBURN AVE <4900) (VAR.X16") 1 EACH MAST ARM MOUNTED
9090	10.3 SF	D3-2 (AUBURN AVE 4900>) (VAR.X16") 1 EACH MAST ARM MOUNTED

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

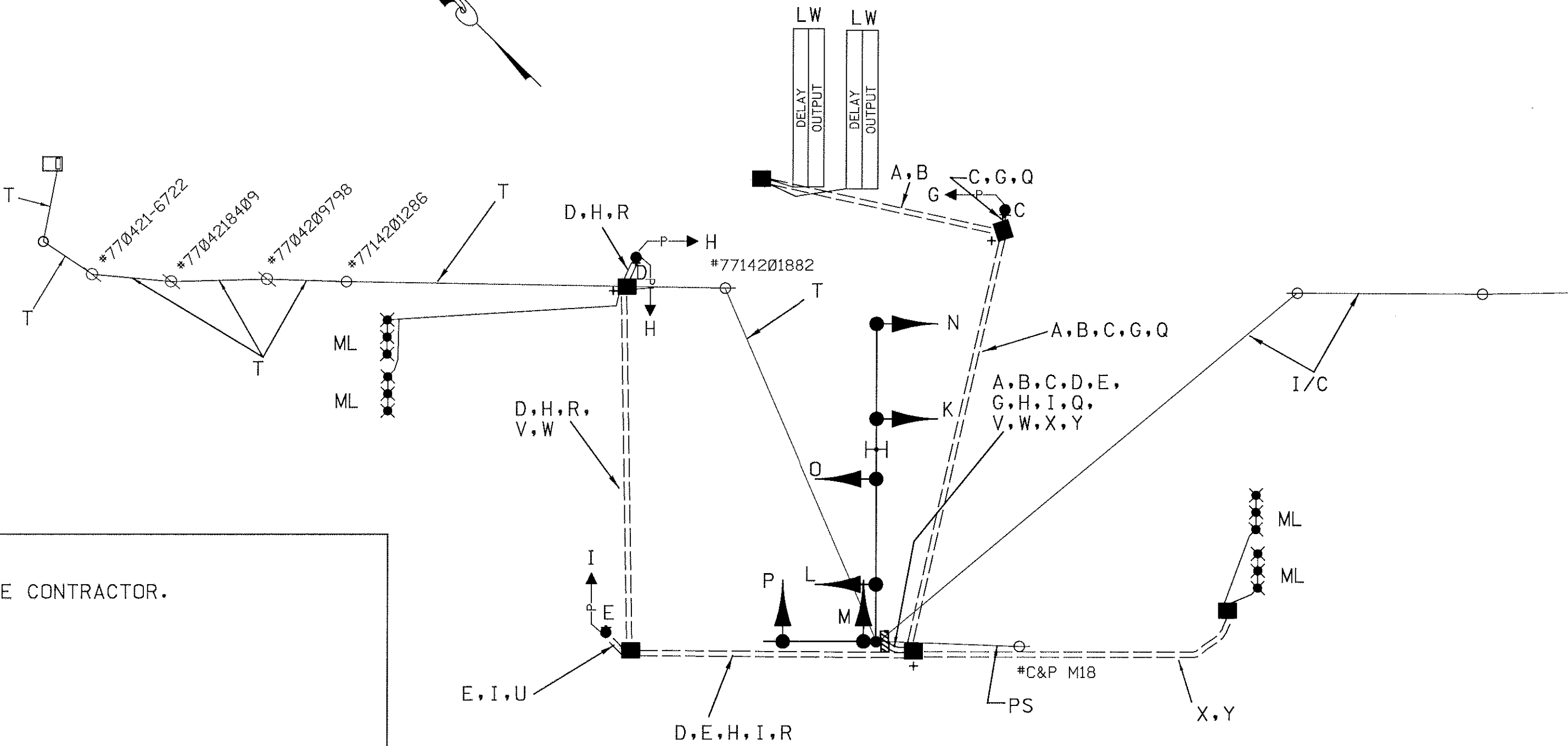
ITEM	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	3 CY	TEST PIT EXCAVATION
5001	30 LF	6 INCH YELLOW PERMANENT PERFORMED PAVEMENT MARKING TAPE
5003	110 LF	12 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5004	90 LF	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5013	250 LF	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
6001	120 SF	4 INCH CONCRETE SIDEWALK
8001	7 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8008	1 EA	FURNISH AND INSTALL 3 INCH WEATHERHEAD
8011	9 EA	INSTALL SIGNAL HEAD (ANY TYPE)
8016	4 EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FT LEAD-IN
8018	4 EA	INSTALL PUSHBUTTON AND SIGN
8020	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	225 LF	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
8023	30 LF	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	85 LF	FURNISH AND INSTALL 2 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8027	20 LF	FURNISH AND INSTALL 3 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8028	225 LF	FURNISH AND INSTALL 3 INCH SCH 80 RIGID PVC CONDUIT - SLOTTED
8033	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	3 EA	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8038	1150 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE SELF-SUPPORTING (OVERHEAD)
8040	895 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14 AWG)
8041	340 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8042	375 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO 14 AWG)
8043	90 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8044	375 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8045	170 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8049	210 LF	FURNISH AND INSTALL NO 6 AWG STRANDED BARE COPPER GROUND WIRE
8054	21 SF	INSTALL OVERHEAD SIGN
8058	2 EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCHES BELOW GRADE
8059	1 EA	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EA	DELIVERY OF REMOVED CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8061	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8070	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V 1PHASE 3 WIRE SYSTEM)
8085	1 EA	FURNISH AND INSTALL MAST ARM POLE AND TWIN (50 FT / 60 FT) OR 60 FT / 50 FT) MAST ARMS
NEG	2 EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION. 7941 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
2	12" X 30' STEEL STRAIN POLE
1	CONTROLLER AND CABINET

- NOTES:
- ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
 - THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.
 - THE EXISTING CONTROLLER CABINET SHALL BE RETURNED TO MONTGOMERY COUNTY.

WIRING DIAGRAM



WIRING KEY

A.B	- 2 CONDUCTOR ELECTRICAL CABLE (#14 AWG) ALUMINUM SHIELDED	T	- 12 PAIR COMMUNICATION CABLE OVERHEAD SELF-SUPPORTING
C,D,E	- 2 CONDUCTOR ELECTRICAL CABLE (#14 AWG)	V,W,X,Y	- MICRO-LOOP PROBE LEAD-IN
I	- 3 CONDUCTOR ELECTRICAL CABLE (#14 AWG)	ML	- MICRO-LOOP PROBE SET
G,H,K, L,M	- 5 CONDUCTOR ELECTRICAL CABLE (#14 AWG)	I/C	- EXISTING INTERCONNECT CABLE
N,O,P	- 7 CONDUCTOR ELECTRICAL CABLE (#14 AWG)	LW	- LOOP WIRE (#14 AWG)
O,R,U	- STRANDED BARECOPPER GROUND WIRE (#6 AWG)	PS	- PROPOSED OVERHEAD POWER SOURCE
		+	- 3/4" x 10' GROUND ROD

PHASING SEQUENCE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	
	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	G	G	G	G	G	G	G	G	G	G	G	G	
Phase 2 & 6	G	G	G	G	R	R	WK	WK	DW	DW	DW	DW	
PED Clear	G	G	G	G	R	R	FLDW	FLDW	DW	DW	DW	DW	
2 & 6 Change	Y	Y	Y	Y	R	R	DW	DW	DW	DW	DW	DW	
Phase 4	R	R	R	R	G	G	DW	DW	DW	DW	DW	DW	
4 Change	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	
Alt Phase 4	R	R	R	R	G	G	DW	DW	WK	WK	WK	WK	
PED Clear	R	R	R	R	G	G	DW	DW	FLDW	FLDW	FLDW	FLDW	
Alt 4 Change	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	

BAI

BRUDIS & ASSOCIATES, INC.
CONSULTING ENGINEERS

9220 RUNSEY ROAD, SUITE 210
COLUMBIA, MARYLAND 21045
(410)-884-3607

REVISIONS

APPROVALS

ASST. DIVISION CHIEF, TEDD

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, OFFICE OF TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

MD 187 (OLD GEORGETOWN RD) & AUBURN AVE.

DATE 2 /13/ 98

DRAWN BY: R. MILSTEAD

F.A.P. NO.

CHECK BY: T. BRUDIS

S.H.A. NO.

AW 277A5E/B56

COUNTY MONTGOMERY

PLAN

SHEET NO.:

TS- 3784A

SHEET NO.

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